

What is claimed is:

- 1 1. A method comprising:
  - 2 receiving a message, the message comprising header information and data
  - 3 descriptors about data that is transmitted with the header information;
  - 4 obtaining the data from a host, said host remotely disposed with respect to an
  - 5 input/output (I/O) processor;
  - 6 inserting the data in the message; and
  - 7 sending the message toward its destination.
- 1 2. The method of claim 1 wherein the header information comprises header
  - 2 descriptors for a transmission control protocol/internet protocol (TCP/IP) header.
- 1 3. The method of claim 2 wherein the header information is obtained from local
  - 2 I/O memory using the header descriptors.
- 1 4. The method of claim 1 wherein the data descriptors define at least the type of
  - 2 data, the amount of data and the location of the data in the message.
- 1 5. The method of claim 1 wherein obtaining the data from the host comprises
  - 2 using the data descriptors to obtain the data from a host that is remotely disposed with
  - 3 the I/O processor via a bus.
- 1 6. The method of claim 5 wherein the bus is at least one of a peripheral component
  - 2 interconnect (PCI) bus, an EISA bus and a PCIX bus.

1 7. The method of claim 1 wherein obtaining the data from the host comprises  
2 obtaining the data from the host via a direct memory access (DMA) cycle.

1 8. The method of claim 1 wherein the message is received by any one of a network  
2 interface card, and an intermediate software module locally disposed with respect to the  
3 I/O processor.

1 9. The method of claim 1 wherein obtaining the data from the host comprises  
2 receiving the data via a PCI to PCI bridge.

1 10. A computer system comprising:  
2 a bus communicatively coupled with a host;  
3 an I/O processor communicatively coupled with the bus and an I/O module;  
4 a network interface card (NIC) communicatively coupled with the processor said NIC  
5 to  
6 receive a message, the message comprising header information and data  
7 descriptors about data that is transmitted with the header information;  
8 obtain the data from a host, said host remotely disposed with respect to an  
9 input/output (I/O) processor;  
10 insert the data in the message; and  
11 send the message toward its destination.

1 11. The apparatus of claim 10 wherein the header information comprises header  
2 descriptors for a transmission control protocol/internet protocol (TCP/IP) header.

1 12. The apparatus of claim 10 wherein the header information is obtained from  
2 local I/O memory using the header descriptors.

1 13. The apparatus of claim 10 wherein the data descriptors define at least the type  
2 of data, the amount of data and the location of the data in the message.

1 14. The apparatus of claim 10 wherein the NIC to receive the data from the host  
2 comprises the NIC receiving the data from a host that is remotely disposed with the I/O  
3 processor via at least one of a peripheral component interconnect (PCI) bus, an EISA  
4 bus and a PCIX bus.

1 15. The apparatus of claim 10 wherein the NIC to obtain the data from the host  
2 comprises the NIC to obtain the data from the host via a direct memory access (DMA)  
3 cycle.

1 16. An article of manufacture comprising:  
2 a machine-accessible medium including instructions that, when executed by a  
3 machine, causes the machine to perform operations comprising  
4 receiving a message, the message comprising header information and data  
5 descriptors about data that is transmitted with the header information;  
6 obtaining the data from a host, said host remotely disposed with respect to an  
7 input/output (I/O) processor;  
8 inserting the data in the message; and  
9 sending the message toward its destination.

1 17. The article of manufacture as in claim 16, wherein the instructions for receiving  
2 a message comprising header information comprises further instructions for receiving  
3 header descriptors for a transmission control protocol/internet protocol (TCP/IP)  
4 header.

1 18. The article of manufacture as in claim 17, wherein instructions for receiving a  
2 message comprising header information includes further instructions for obtaining  
3 header information from local I/O memory using the data descriptors.

1 19. The article of manufacture as in claim 16, wherein said instructions for  
2 receiving a message, the message comprising header information and data descriptors  
3 about data that is transmitted comprises further instructions for the data descriptors  
4 defining at least the type of data, the amount of data and the location of the data in the  
5 message.

1 20. The article of manufacture as in claim 16, wherein said instructions for  
2 obtaining the data from a host comprises further instructions for obtaining data from a  
3 host that is remotely disposed with the I/O processor via a peripheral component  
4 interconnect (PCI) bus, an EISA bus and a PCIX bus.

1 21. The article of manufacture of claim 16 wherein said instructions for obtaining  
2 the data from the host comprises further instructions for obtaining the data from the  
3 host via a direct memory access (DMA) cycle.

1 22. The article of manufacture of claim 16, wherein said instructions for receiving a  
2 message comprises further instructions for any one of a network interface card, and an

3 intermediate software module locally disposed with respect to the I/O processor  
4 receiving the message.

1 23. An apparatus comprising:  
2 a bus; and  
3 a network interface card (NIC) coupled to the bus, said NIC to  
4 receive a message, the message comprising header information and data  
5 descriptors about data that is transmitted with the header information;  
6 obtain the data from a host, said host remotely disposed on the bus with respect  
7 to the NIC;  
8 insert the data in the message; and  
9 send the message toward its destination.

1 24. The NIC of claim 23 wherein the header information comprises header  
2 descriptors for a transmission control protocol/internet protocol (TCP/IP) header.

1 25. The NIC of claim 23 wherein the header information is obtained from local I/O  
2 memory using the header descriptors.

1 26. The NIC of claim 23 wherein the data descriptors define at least the type of  
2 data, the amount of data and the location of the data in the message.

1 27. The NIC claim 23 wherein obtaining the data from the host comprises using the  
2 data descriptors to obtain the data from a host that is remotely disposed with the I/O  
3 processor via a bus.

- 1 28. The NIC of claim 27 wherein the bus is at least one of a peripheral component  
2 interconnect (PCI) bus, an EISA bus and a PCIX bus.
- 1 29. The NIC of claim 23 wherein obtaining the data from the host comprises  
2 obtaining the data from the host via a direct memory access (DMA) cycle.
- 1 30. The NIC of claim 23 wherein obtaining the data from the host comprises  
2 receiving the data via a PCI to PCI bridge.

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